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MOVERS

Georgina Mace, director, Centre for Population Biology, Imperial College London, UK

2000–06: Director of science, Institute of Zoology, Zoological Society of London, London, UK
1999–2000: Senior research fellow, Institute of Zoology
1994–99 NERC Advanced Research Fellow, Institute of Zoology
1991–94: Pew Scholar in Conservation & Environment, Institute of Zoology

Georgina Mace was among those attracted to John Maynard Smith's pioneering work in evolutionary ecology at the University of Sussex in the 1970s. As one of the first generation of conservation biologists, Mace has not only contributed to the scientific development of the field, but actively translated science into effective policy.

Mace's PhD thesis focused on the evolutionary ecology of small mammals, one of the first studies using comparative methods to test ecological and evolutionary hypotheses. She then went to the Smithsonian Institution in Washington DC to gain more qualitative insights from John Eisenberg, a mammalian expert at the US National Zoological Park. While there, Mace managed the effects of inbreeding in zoo populations, a task well suited to her background in evolutionary theory.

Mace moved to the University of Newcastle upon Tyne as a research fellow in comparative biology, but soon decided to work with zoo populations again. In the 1980s, she and her colleagues helped further the field by developing theories related to population viability, an area for which zoo populations were an important case study. "It was exciting to make quantitative scientific contributions to conservation," she says.

Mace continued her work at the boundary of pure and applied science, as scientific adviser and conservation coordinator of the Federation of Zoological Gardens and at the Institute of Zoology in London. There, she helped to revise the rules for the World Conservation Union's list of threatened species. In 2000 she became science director of the institute, and reorganized the disciplinary groups into thematic areas — such as wildlife epidemiology — where breakthroughs in conservation biology were taking place.

On 1 November, she became director of the Natural Environment Research Council's Centre for Population Biology at Imperial College London. Evolutionary theorist Paul Harvey, who is currently secretary of the board of the Zoological Society of London, says that Mace's professional credentials and ability to influence policy will be major assets as she takes on her first major challenge. She will be faced with creating a strategic research plan to ensure the centre's government funding and to align its priorities with national and international science needs.

Mace also plans to use Imperial's focus on environmental issues such as climate change to promote cross-disciplinary work involving biodiversity and population biology. ■

Virginia Gewin

SCIENTISTS & SOCIETIES

The view from Russia

As a scientist working and studying in Russia for the past 25 years, I've noted many changes as the country begins to adapt to new realities. Superficially the situation simply stagnates, but a more attentive view shows that it may be changing in some important ways.

Instead of monolithic control of science, we have a highly visible conflict between the Ministry of Science and the Russian Academy of Sciences. This is a good thing. As both try to appeal to the public, they serve as each other's watchdogs, and so try to avoid obvious transgressions.

On the surface at least, the ministry looks more merit-based. Its strategy — as reflected in ministry documents, public statements and interviews — includes more competitive grants (as opposed to direct budgeting), peer review, international experts, and a merit-oriented hiring and salary system. But my observations and discussions with colleagues suggest that many of its programmes are still infested with kickbacks and closed-door decisions.

The academy's governing body, the presidium, while paying lip service to peer review, is, in fact, opposed to the grant system, and relies on 'scientific programmes', many of which create a conflict of interest: decisions are made by people who directly benefit from them. Clashes between the ministry and the presidium reached top levels over 'bonuses for productivity'. In May, the ministry decided to establish a system of merit-oriented bonuses based on impact factors and citation indices, talks at international conferences and other easily measurable criteria.

The academy's top management has attacked this project, suggesting that all decisions should be left to the discretion of institute directors. Admittedly, the ministry scheme is a temporary fix in the absence of a real peer-review system. Nevertheless, I think, it is a step in the right direction.

The role of international bodies has also changed. Few Russian scientists now depend on international grants, as in the 1990s. Still, as international agencies are usually free from local influences, grants such as Howard Hughes Medical Institute international scholar awards provide a much-needed example of fair, transparent competition.

Changes are slow and painful, but given our country's history, it would be naïve to expect otherwise. ■

Mikhail Gelfand is head of the Bioinformatics Center of the Institute for Information Transmission Problems at the Russian Academy of Sciences and a Howard Hughes International Research Scholar.

GRADUATE JOURNAL

The path to a PhD

As I work towards my PhD, I can't help but look back on how I got here. When I was 11 or so, I saw the film *Lorenzo's Oil*. The excitement of finding a cure for a disease captured my imagination and made me want to be a doctor. Learning of the cell structure, DNA and genes at school, I was enthralled. At the age of 17, after visiting hospitals and starting to apply to medical school, I decided I wanted to investigate the causes of genetic diseases rather than treat the symptoms. A degree in biology followed.

While at university, I discovered evolution on a big scale: the subtleties and power of it, unrealized at school, astonished me. Developmental genetics also interested me — how a single cell develops into a complete organism. Evo-devo was the area that would allow me to combine the two.

Plants seemed the best model system to ask how genetics shapes the development of different organisms. Not only are there plenty of advanced research techniques available, but plants are pleasant to work with. Unlike mice, worms or flies, leaves of different shapes and sizes surround me every day as I walk to university. How could I not be fascinated by their evolution? Sometimes I wonder what it'd be like to do more medical work. But give me a greenhouse full of ferns over an incubator of mammalian cell cultures any day. ■

Mhairi Dupré is a first-year PhD student in evolutionary developmental biology at the University of Oxford, UK.